

REMARKS

Deposit of Biological Material

Applicants acknowledge the requirements for the deposit of seed under 37 C.F.R. §

1.809(c)(d). With regard to the deposit of Hybrid 39J26, Applicants wish to note:

- a) during the pendency of this application access to the invention will be afforded to the Commissioner upon request;
- b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- c) the deposit will be maintained in a public depository for a period of thirty years, or five years after the last request for the enforceable life of the patent, whichever is longer;
- d) a test of the viability of the biological material at the time of deposit will be conducted (see 37 C.F.R. § 1.807); and
- e) the deposit will be replaced if it should ever become inviable.

Applicants wish to state that the actual ATCC deposit will be delayed until the receipt of notice that the application is otherwise in condition for allowance. Once such notice is received, an ATCC deposit will be made, and the specification will be amended to recite the accession number for the deposit, the date of the deposit, a description of the deposited material sufficient to specifically identify it and to permit examination, and the name and address of the depository. The claims will also be amended to recite the ATCC deposit number. In addition, Applicant's submit that at least 2,500 seeds of Hybrid 39J26 will be deposited with the ATCC.

Rejections Under 35 U.S.C. § 112 Second Paragraph

Claims 1 - 32 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1, 5 and 7 stand rejected for being "incomplete in the recitation

of the limitation representative seed having been deposited under ATCC accession number ____". Applicants respectfully traverse this rejection. Applicants respectfully submit that a deposit will be delayed until notice of otherwise allowable claims as provided under 37 C.F.R. § 1.809. Once notice of allowable claims has been received by Applicants, a deposit will be made with the ATCC and the claims will be amended to recite the accession number.

The Examiner further states that claims 11, 15, 19, 24, 28 and 32 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the "recitation of 'said maize plant' as being both vague and indefinite as it is unclear which maize plant is being referenced".

Applicants respectfully traverse this rejection. Claims 11, 15, 19, 24, 28 and 32 are directed to a maize plant, or its parts, wherein at least one of the ancestors of said plant is the maize Hybrid 39J26. These claims describe and define that the plant of these claims can arise from 39J26 or its parts, including its seeds. In addition, these claims clearly define the essential features of Hybrid 39J26 whereby plants having 39J26 as an ancestor can clearly be distinguished.

In light of the above remarks, Applicants respectfully submit that claims 1 - 32 clearly define and distinctly claim the subject matter Applicant regards as the invention. Applicants respectfully request reconsideration and withdrawal of the rejections to claims 1 - 32 under 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 112 First Paragraph

Claims 16 - 19 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art to make and/or use the invention. The Examiner states "the limitation of one or more genes transferred by backcrossing fail to set the metes and bounds

of the invention as the term does not carry with it any limitation as to the structural or physical properties of the genes".

Applicants respectfully traverse this rejection. Claims 16 - 19 depend ultimately from independent claim 1 whereby the hybrid maize seed is designated as 39J26. Therefore, the specification and the claims do disclose the physiological and morphological characteristics of corn hybrid 39J26 and thus enable the person having skill in the art the ability to make and use the invention. Furthermore, any plant having all of the physiological and morphological characteristics, which fully encompass the phenotypic characteristics, of the claimed hybrid is fully described and enabled, and these plants are encompassed by the scope of the claims as written (see Table 1, pages 16 - 17). A plant which has all of the physiological and morphological characteristics of hybrid 39J26 is described and enabled within the scope of this invention, whether this plant came from the ATCC deposit, or an inclusion of the selfed inbred parents in a bag of hybrid seed, or was developed independently by a breeder.

The Examiner further points to Ex parte Tanksley, 37 U.S.P.Q.2d 1382 (Bd. Pat. App. & Int'l 1994) as instructive in cases where claims first appear enabled are found indefinite and broader than that warranted by the deposit of material which enables Applicant's specific contribution to the art.

Applicant respectfully traverses this rejection. Under Ex parte Tanksley, claims in a patent application for a set of DNA marker clones useful for distinguishing between tomato varieties and for linking with traits of interest were found indefinite and broader than that warranted by the deposit of material which enabled the precise contribution to the art. Ex parte Tanksley referenced two figures in the patent application in question which depict map sites for these DNA marker clones. The figures include map distances with a caveat "it should be

understood that variations of 5 - 10 cM are not statistically significant and clones within such distance of each other are within the scope of equivalents of this invention." Applicant in Ex parte Tanksley was claiming a "scope of equivalents" which would include any probe or marker clone on a chromosome within a 5 - 10 cM distance. The Board of Patent Appeals and Interferences held that this would be "analogous to extending coverage to other integers along the number line, not recited in the claims." The Board also held that in light of this ambiguity, the claims would take on an unreasonable degree of uncertainty and were indefinite within the meaning of 35 U.S.C. § 112.

In the present application, Applicants respectfully submit that the phenotypic characteristics of hybrid maize plant and seed 39J26 have been fully described. Further, all plants meeting this description will have been fully enabled through a deposit with the ATCC of seed of Hybrid 39J26. The present invention is clearly distinguished from the invention in Ex parte Tanksley because the present invention describes the relatively finite set of characteristics and traits which describe hybrid maize plant and seed 39J26 and not an infinite array of traits whose genetic code could be encapsulated in a 20 cM distance of a DNA marker.

Applicants respectfully submit that the deposit of seed of Hybrid 39J26 will fulfill the written description requirements, and will enable one of skill in the art to make and use the invention. Furthermore, any plant having all of the physiological and morphological characteristics, which fully encompass the phenotypic characteristics, of the claimed hybrid is fully described and enabled, and these plants are encompassed by the scope of the claims as written.

The Examiner states that "alternatively, the claims may be interpreted to include trivial modification of enabled seeds, and hybrid plants of 39J26 and its parts, in which the same retain

all the phenotypic characteristics of hybrid corn line 39J26, its parts and hybrids". The Examiner states that "the specification does not teach the metes and bounds of such trivial modifications". Applicant respectfully traverses this rejection. It would be obvious to one skilled in the art to utilize such techniques as backcrossing, using molecular markers, or insertion of a gene using transformation techniques obvious to one skilled in the art to introduce single gene traits into a known and described line. These modifications are generally suggested in the specification at pages 33 - 34. Therefore, utilizing the invention acquired either through deposit of ATCC seed or through inadvertent crossing of the inbred parent seed in the hybrid bag and making a trivial modification via skills known to one skilled in the art will be encompassed by the description of this invention.

In light of the above, Applicant respectfully submits that the specification does teach the metes and bounds of a maize plant having all of the physiological and morphological characteristics, which fully encompass the phenotypic characteristics, of Hybrid 39J26, including trivial modifications. Applicants respectfully request reconsideration and withdrawal of these rejections.

In addition, the Examiner goes on to state, at page 4 of the Office Action, that the claimed invention is free of the prior art. This clearly indicates that Hybrid 39J26 as a whole is considered to be distinguishable from the prior art for the purposes of novelty and non-obviousness. How, then, can the invention not be described in the specification in such a way as to reasonably convey to one of skill in the art that at the time of filing, the inventor has possession of the claimed invention? In any event, assuming for the sake of argument that the very detailed written description of Hybrid 39J26 somehow does not satisfy the written description requirement (and Applicant is not admitting that it does not), the deposit of the

representative seed of Hybrid 39J26 should satisfy the description requirement. In light of the above, Applicant respectfully submits that the rejection under 35 U.S.C. § 112, first paragraph, is improper for the aforementioned reasons and requests reconsideration and withdrawal of this rejection.

Conclusion

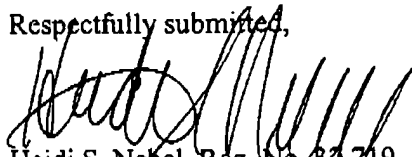
In light of the above remarks, Applicants respectfully assert that claims 1 - 32 are now in condition for allowance. Applicants respectfully request reconsideration and withdrawal of the above rejections.

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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Application No. 09/542,618

**AMENDMENT — VERSION WITH MARKINGS
TO SHOW CHANGES MADE**

In the Specification

Please replace the paragraph at page 23, beginning at line 32 with the following:

With the advent of molecular biological techniques that have allowed the isolation and characterization of genes that encode specific protein products, scientists in the field of plant biology developed a strong interest in engineering the genome of plants to contain and express foreign genes, or additional, or [modified]modified versions of native or endogenous genes. (perhaps driven by different promoters) in order to alter the traits of a plant in a specific manner. Such foreign, additional and/or modified genes are referred to herein collectively as "transgenes". Over the last fifteen to twenty years several methods for producing transgenic plants have been developed, and the present invention, in particular embodiments, also relates to transgenic versions of the claimed hybrid maize line 39J26.